

FOUNDATION OF STATISTICS FOR DATA ANALYTICS

(DATA ANALYTICS)

DC-FSDA

Duration: 5 days; Instructor-led | Virtual Instructor-led

OVERVIEW

This programme is created specifically for learners who wish to develop, apply, and evaluate algorithms, predictive data modeling and data visualisation to identify underlying trends and patterns in data.

OBJECTIVES

- Organisational domain(s) and key business processes
- Methods to use analytics to tell the story of the data
- Methods to use exploratory visual analysis and predictive modelling
- Methods to identify and prioritise the problems to be solved
- Methods to develop prototype algorithms
- Methods to build a data model
- Methods to use data mining to discover new business insights
- Methods to interpret patterns in data and their relevance to business issues
- Range of established and novel tools and techniques used in developing new business insights
- Methods to apply complex software tools to analyse data
- Use of statistical techniques, experimental techniques, and hypothesis testing
- Apply predictive data modelling techniques to identify underlying trends and patterns in data using statistical computing tools, methods and procedures
- Identify patterns across multiple data sets to derive insights
- Develop prototype algorithms and proof of concept demonstrations
- Make decisions about which patterns are meaningful, and which to further analyse
- Assemble data aggregations to build data models to help test problem hypotheses
- Use machine learning techniques to gain new insights from data
- Mine data to find relevant insights to develop ongoing improvements
- Assess the business insights presented to determine impact of insights on organisation
- Manage the creation of interactive visualisations of data and data study outcomes
- Use industry standard tools and techniques for data visualisation in line with organisational procedures

PREREQUISITES

- No prerequisites

AUDIENCE

- Individuals actively engaged in the field of data analytics.

COURSE CONTENTS

Module 1: Introduction To Foundation Of Statistics

- Introduction to Business Analytics
- Use cases of Predictive Analytics in Business
- Introduction to Foundation of Statistics

Module 2: Data Scoping, Exploration And Sense Making

- Business measurement and data
- Data connection, size, and quality
- Data exploration visually

Module 3: Data Insight Extraction And Explanation

- Data insight extraction
- Data analytics results interpretation
- Data analytics results recommendation

Module 4: Data Models And Prototyping Algorithms

- Algorithm development process framework
- Data selection and model development to support algorithms training and testing
- Algorithm comparison
- Algorithm recommendation

Module 5: Data Storytelling

- Introduction to Data Storytelling
- Intrinsic characteristics of data
- Overview of data visualisation and patterns
- Alignment of reporting needs and choice of metrics and visualisation